

WHAT IS CLAIMED IS:

1. A saccharide-derivatized oligosaccharide mixture comprising the extrusion reaction product of a saccharide product having an average degree of polymerization ranging from 1 to 4 with a mixture of malto-oligosaccharides, wherein upon extrusion sufficient heat and work are imparted to said mixture of malto-oligosaccharides and said saccharide to derivatize said malto oligoasccharide with said saccharide.
- 10 2. A mixture according to claim 2, at least about 75% of the malto-oligosaccharides in said mixture having a degree of polymerization greater than 5.
- 15 3. A mixture according to claim 1, said saccharide product consisting essentially of dextrose.
4. A mixture according to claim 3, said dextrose being in monohydrate form.
- 20 5. A mixture according to claim 1, said saccharide product consisting essentially of a mixture of dextrose and hydrogenated starch hydrolyzate, said product including about 50% to about 95% by weight of said hydrogenated starch hydrolyzate.
- 25 6. A mixture according to claim 5, said starch hydrolyzate being sorbitol.
7. A mixture according to claim 1, said saccharide product consisting essentially of maltose.
- 30 8. A mixture according to claim 1, said saccharide product consisting essentially of maltotriose.

9. A mixture according to claim 1, said saccharide product consisting essentially of maltotetraose.

10. A mixture according to claim 1, said saccharide product comprising
5 a mixture of dextrose and at least one other saccharide.

11. A process for preparing a mixture of saccharide-derivatized oligosaccharides, comprising:

10 providing a saccharide product having an average degree of polymerization of 1 to 4;

15 providing a mixture of malto-oligosaccharides in which at least a portion of the malto-oligosaccharides in said mixture have a degree of polymerization greater than 5; and

15 derivatizing said mixture of malto-oligosaccharides with said saccharide product to form a mixture of saccharide-derivatized oligosaccharides by extruding a blend of said mixture of malto-oligosaccharides and said saccharide product under extrusion conditions sufficient to form a mixture of saccharide derivatized oligosaccharides.

20 12. A process according to claim 11, said derivatization being catalyzed with an acid.

25 13. A process according to claim 12, said acid being selected from the group consisting of citric acid, acetic acid, adipic acid, fumaric acid, gluconic acid, lactic acid, malic acid, phosphoric acid, and tartaric acid.

14. A process according to claim 14, said acid being citric acid.

15. A process according to claim 14, said acid being lactic acid.

30 16. A process according to claim 11, said blend being a spray-dried mixture of said saccharide product and said malto-oligosaccharide.

17. A process according to claim 11, including the step of selecting an amount of saccharide product insufficient to yield a liquid product from said extruder but sufficient to avoid charring said product.

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18. A process according to claim 11, further comprising decolorizing said mixture of saccharide-derivatized oligosaccharides.

19. A process according to claim 18, further comprising the step of
10 spray-drying said decolored mixture.

20. A spray-dried product formed in accordance with claim 19.

21. A process according to claim 11, said saccharide product and said
15 malto-oligosaccharide mixture being provided in a single mixture.

22. A process according to claim 11, said saccharide product consisting essentially of dextrose.

20 23. A process according to claim 11, said saccharide product consisting essentially of a mixture of dextrose and a hydrogenated starch hydrolyzate, said product including an amount ranging from about 50% to about 95% by weight of said hydrogenated starch hydrolyzate.

25 24. A process according to claim 23, said hydrogenated starch hydrolyzate being sorbitol.

25. A process according to claim 22, said dextrose being in monohydrate form.

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26. A process according to claim 11, said saccharide product consisting essentially of maltose.

27. A process according to claim 11, said saccharide product consisting essentially of maltotriose.

5 28. A process according to claim 11, said saccharide product consisting essentially of maltotetraose.

29. A process according to claim 11, said saccharide product comprising a mixture of dextrose and at least one other saccharide.

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30. The product formed by the process of claim 11.

31. The product formed by the process of claim 23.

15 32. A process for preparing a saccharide derivatized oligosaccharide, comprising:

providing an oligosaccharide having a degree of polymerization of at least 5;

selecting an amount of saccharide product effective to derivatize said 20 oligosaccharides via extrusion, said amount being sufficient to prevent significant charring of the derivatized product but insufficient to yield a liquid product upon extrusion; and

extruding a mixture of said oligosaccharide and said saccharide to thereby derivatize said oligosaccharides.

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33. A process for preparing a mixture of saccharide derivatized oligosaccharides, comprising:

providing a mixture of malto-oligosaccharides in which at least a portion of the malto-oligosaccharides in said mixture have a degree of polymerization greater than 5;

selecting an amount of a saccharide product effective to derivatize said mixture of malto-oligosaccharides via extrusion, said amount being sufficient to

prevent significant charring of the derivatized product but insufficient to yield a liquid product upon extrusion; and

extruding a mixture of said saccharide and said malto-oligosaccharides mixture to thereby derivatize said mixture of malto-oligosaccharides.